A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B67C3/02 B67C3/20

B67C3/24

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

 $\begin{array}{ccc} \text{Minimum documentation searched} & \text{(classification system followed by classification symbols)} \\ IPC & 7 & B67C & B65B \\ \end{array}$

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 2 630 425 A (TOPCZEWSKI DANIEL) 27 October 1989 (1989-10-27) page 5, line 19 - line 22 page 6, line 2 - line 15 abstract; figures 6-9	1,2
Х	EP 0 733 587 A (TOPCZEWSKI DANIEL) 25 September 1996 (1996-09-25) column 2, line 50 - line 55 column 4, line 6 - line 11 figures 2,3	1,2
X	US 2 988 450 A (BULATKIN ILIYA F) 13 June 1961 (1961-06-13) figure	1,2

X Further documents are listed in the continuation of box C.	χ Patent family members are listed in annex.
 Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed 	 "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
Date of the actual completion of the international search 15 September 2004	Date of mailing of the international search report 24/09/2004
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016	Authorized officer Martinez Navarro, A.

Form PCT/ISA/210 (second sheet) (January 2004)

C.(Continue	tion) DOCUMENTS CONSIDERED TO BE RELEVANT	102004/ 002136		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
Α	EP 1 243 546 A (AZIONARIA COSTRUZIONI) 25 September 2002 (2002-09-25) paragraphs '0027!, '0028!, '0034!; figure 4	1,18		
A	WO 01/89928 A (NOELL LAURENT; SERAC GROUP (FR)) 29 November 2001 (2001-11-29)			
Corn PCT/ISA	210 (continuation of second sheet) (January 2004)			

Information on patent family members

ional Application No IB2004/002156

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
FR 2630425	A	27-10-1989	FR	2630425 A1	27-10-1989
EP 0733587	A	25-09-1996	EP DE DE ES	0733587 A1 69501665 D1 69501665 T2 2120701 T3	25-09-1996 02-04-1998 22-04-1999 01-11-1998
US 2988450	Α	13-06-1961	NONE		
EP 1243546	A	25-09-2002	IT CN EP US	B020010161 A1 1375430 A 1243546 A2 2002134460 A1	23-09-2002 23-10-2002 25-09-2002 26-09-2002
WO 0189928	A .	29-11-2001	FR BR EP WO US	2809377 A1 0111089 A 1283795 A1 0189928 A1 2003145901 A1	30-11-2001 08-04-2003 19-02-2003 29-11-2001 07-08-2003